

ENGINEERING HERITAGE RECOGNITION PROGRAM

Proposal to Nominate

Black Bobs Creek Bridge

as an Item of Engineering Heritage Interest

Item Name:	Black Bobs Creek Bridge		
Other/Former Names:	Black Bobs Bridge; Crawford's Creek Bridge (former name)		
Locality:	Sutton Forest NSW		
Address:	Black Bobs Creek, off Hume Highway behind Mackey VC Rest Area, Sutton Forest NSW 2577		
Co-ordinates	Lat: -34.57491 Lon: 150.25500		
Current Owner:	Wingecarribee Shire Council		
Original Owner:	Colony of NSW		
Current use:	Orphan bridge – historic monument		
Former use:	Bridge on the Great Southern Road		
Proposed use:	NA		
Item Condition:	Good		
Designer:	Original by David Lennox in 1836; mass concrete arch by Public Works Department in 1896.		
Builder:	1836 bridge: workmen unknown, supervision by David Lennox. 1896 bridge: John Wallace Park, contractor to Public Works Department.		
Started:	Original: unknown	Completed:	Original: 1836. Concrete arch: 1896
History:	<p>Black Bob's Creek Bridge is located in the area which was home to the Gandangara people before European occupation.</p> <p>The creek known as Narrawar was renamed Black Bobs Creek after the Scottish-born General Robert Craufurd, who was nicknamed 'Black Bob' due to his violent mood swings</p> <p>In 1829 Major Mitchell as Surveyor-General of NSW assumed responsibility for the survey of roads and bridges. As part of his general survey of the Colony begun in 1828 Mitchell made plans for the realignment of large sections of the major arterial roads leading from Sydney, including the Great South Road.</p> <p>in June 1832 the Governor, Sir Richard Bourke authorised construction of one section of the Great South Road from Lupton's Inn 16km south of Picton, to Goulburn. Mitchell's New Line necessitated the building of several substantial bridges, the largest over the Wingecarribee River at Berrima, with two smaller structures across the Medway Rivulet and Black Bob's Creek. The task of designing and supervising the construction of these bridges was given to David Lennox.</p> <p>Of the three bridges designed by Lennox on the Great South Road only the stone abutments and retaining walls associated with the bridge over Black</p>		

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	<p>Bob's Creek are extant. The bridges at Berrima and the Medway Rivulet were washed away by floods in 1860.</p> <p>The bridges designed by Lennox were part of a new phase of road engineering in NSW; until his appointment, bridge design and construction was haphazard and in most cases of an impermanent nature. Mitchell's plans for improvement of the Great Roads of the colony were greatly assisted by Lennox's technical knowledge and experience in the art of bridge building. Lennox is considered the most significant of the early bridge builders/designers in NSW. David Lennox was a Scottish stonemason who had twenty years' experience in bridge building before emigrating to New South Wales. He was appointed superintendent of bridges in 1833 and began designing and building a series of stone bridges.</p> <p>At Black Bobs Creek, Lennox originally proposed a stone arch similar to the one he had constructed at Berrima. However, the design was changed to that of a timber beam bridge.</p> <p>Work seems to have proceeded slowly owing to the absence of skilled labour and possibly because of the absence of Lennox himself, who had his headquarters near Lansdowne Bridge in south-west Sydney, which was under construction at the same time. However, though the bridge was passable for traffic in April 1836 the hand railings were not finished. On 1 November 1836 Mitchell noted in his journal: 'On Crawfords Creek I found a bridge of stone buttresses had been nearly completed.'</p> <p>The timber span was replaced, first in 1860 by another timber bridge, then in February 1896 the Department of Public Works advertised for tenders to construct a 'concrete arch culvert over Black Bob's Creek, Main Southern Road'. The successful tenderer was John Wallace Park of Gladesville. The span of the new bridge - an un-reinforced concrete arch, was reduced by 10 ft (3 m) to about 20 ft (6.1 m), and the void filled with earth and rubble. The substantial stone abutments of Lennox's bridge were retained and the concrete of the arch was detailed to appear like stone blocks.</p> <p>The concrete arch which in 1896 replaced Lennox's timber beam bridge, was the first un-reinforced concrete arch bridge in NSW and is the oldest existing concrete bridge in the State. It remained in service for 75 years despite the concrete having been made from low strength sandstone aggregate.</p> <p>When the highway alignment was altered and a new bridge was built nearby in 1971, it effectively removed traffic from Black Bobs Creek Bridge. At the same time a roadside rest area, later named after Mackey VC, was constructed to enable travellers to break their journeys and visit the old bridge.</p>
<p>Description:</p>	<p>Black Bob's Creek runs through a rocky gorge approximately 10 metres deep, with swimming holes. The bridge piers are built on solid rock on each bank. The timber beam bridge built by David Lennox in 1836 had a single span of 30 feet (9.14 m) and sandstone abutments. The piers and support walls are of excellently cut sandstone blocks curving outwards from the creek on all four faces.</p> <p>The existing structure is a replacement that was built in 1896 as an un-reinforced sandstone-concrete arch bridge, with the span reduced to about 20 feet (6.1 m). The void was filled with earth and rubble, and the arch concrete was detailed with the appearance of exposed stone to avoid problems from those who were nervous about the new technology of concrete.</p>

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	<p>Two precast concrete capitals lie in the creek bed.</p> <p>A rough flight of steps has been carved into the nearby rock probably for worker access during the 1896 construction. Sandstone outcrops to the northeast and southeast are benched by quarrying, presumably for the original bridge.</p> <p>The sandstone is in good condition but there is some erosion of the high embankment immediately adjacent on the east side.</p>
Significance:	<p>Black Bob's Creek Bridge is of heritage significance because:</p> <ul style="list-style-type: none"> • it includes the remains of one of only five surviving bridges in NSW designed by David Lennox in the early 19th century (1836); • the concrete arch which replaced Lennox's timber beam bridge in 1896 was the first un-reinforced concrete arch bridge in NSW and is the oldest existing concrete bridge in the State; • its association with the development of effective transport links with the NSW southern highlands and the fringes of the main settlement at Sydney; and • its association with two colonial figures of primary historical importance in New south Wales - David Lennox appointed Superintendent of Bridges in 1833, and Thomas Mitchell, Surveyor General from 1828 to 1855.
Webpage Summary:	<p>In 1828 Major Mitchell as Surveyor-General of NSW, made plans for the realignment of large sections of the major arterial roads leading from Sydney, including the Great South Road.</p> <p>in June 1832 the Governor authorised construction of one section of the Great South Road from Lupton's Inn 16km south of Picton, to Goulburn. Mitchell's New Line necessitated the building of several substantial bridges, including one over Black Bob's Creek.</p> <p>Mitchell's plans for improvement of the colony's Great Roads were greatly assisted by David Lennox, a Scottish stonemason who had twenty years' experience in bridge building before emigrating to New South Wales. Lennox is considered the most significant of the early bridge builders/designers in NSW.</p> <p>Lennox designed three bridges on the Great South Road and of these, only the stone abutments and retaining walls associated with the bridge over Black Bob's Creek are extant.</p> <p>At Black Bobs Creek, Lennox originally proposed a stone arch similar to the one he had constructed at Berrima. However, the design was changed to that of a timber beam bridge, which was completed in 1836.</p> <p>The timber span was replaced, first in 1860 by another timber bridge, then in 1896 the Department of Public Works contracted John Wallace Park to construct a 'concrete arch culvert over Black Bob's Creek, Main Southern Road'. The span of the new bridge - an un-reinforced concrete arch, was reduced by 10 ft (3 m) to about 20 ft (6.1 m), and the void filled with earth and rubble. The substantial stone abutments of Lennox's bridge were retained and the concrete of the arch was detailed to appear like stone blocks.</p> <p>The concrete arch which in 1896 replaced Lennox's timber beam bridge, was the first un-reinforced concrete arch bridge in NSW and is the oldest existing concrete bridge in the State. It remained in service for 75 years despite the concrete having been made from low strength sandstone aggregate.</p>

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Engineering Theme:	Transport, Roads, Bridges		
Heritage Listing:	Wingecarribee Shire Council, LEP #019		
References/Sources:	<ul style="list-style-type: none"> • Black Bob's Creek Bridge: nomination to NSW State Heritage Register 2017. • <i>200 Years of Concrete in Australia</i>. Editor: 1988. Miles Lewis. Concrete Institute of Australia. • <i>The Old Hume Highway – History begins with a road</i>. 2013. NSW Government, Transport Roads & Maritime Services 		
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EHA Branch:	Sydney	Nomination Date:	7 February 2024

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Black Bobs Creek Bridge. RMS image



Black Bobs Creek Bridge. Michael Clarke

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